

08-01-2005

EP0310731

41

10/529272

JC17 Rec'd PCT/PTO 25 MAR 2005

CLAIMS

1. A method of refunding or reusing value as applied to spoiled items, including an element containing an authentication code and bearing sensitive information, in an item stream, the method comprising the steps of:
validating the element on each item in an item stream, wherein an item is assigned as being spoiled where the element does not satisfy at least one validation criterion;
separating spoiled items from the item stream;
for each spoiled item, presenting the element to a third party, such that the sensitive information is not made available to the third party; and
for each spoiled item, refunding or reusing the value as applied to the spoiled item.
2. The method of claim 1, wherein each item is scanned for an element in the validation step.
3. The method of claim 2, wherein the at least one validation criterion requires the element to have at least one physical characteristic, preferably comprising at least one of a position, size and color of the element.
4. The method of any of claims 1 to 3, wherein data is read from each element in the validation step.
5. The method of claim 4, wherein the at least one validation criterion requires authentication of at least part of the read data.
6. The method of claim 5, wherein the authentication of at least part of the read data requires the at least part of the read data to have a predeterminable format.

08-01-2005

EP0310731

42

7. The method of claim 5, wherein the authentication of at least part of the read data requires the at least part of the read data to match check data.
8. The method of any of claims 1 to 7, wherein the element is a printed imprint, preferably a two-dimensional barcode.
9. The method of any of claims 1 to 7, wherein the element is an electronic label, preferably a radio frequency tag.
10. The method of any of claims 1 to 9, wherein the sensitive information is printed on the items.
11. The method of any of claims 1 to 9, wherein the items include an electronic label containing the sensitive information, preferably a radio frequency tag.
12. The method of any of claims 1 to 11, further comprising the steps of:
perforating each spoiled item about the element; and
separating a section of the item including the element and excluding the sensitive information, such as to allow the section to be presented to a third party, with the sensitive information not being made available to the third party.
13. The method of any of claims 1 to 11, wherein each item is perforated about a section including the element, and further comprising the step of:
separating the section of the item including the element and excluding the sensitive information, such as to allow the section to be presented to a third party, with the sensitive information not being made available to the third party.

AMENDED SHEET

08-01-2005

EP0310731

43

14. The method of any of claims 1 to 11, wherein the element is removable from the item, and further comprising the step of:
separating the element, such as to allow the element to be presented to a third party, with the sensitive information not being made available to the third party.
15. The method of any of claims 1 to 11, wherein each item includes a label on which the element is provided, and further comprising the step of:
separating the label, such as to allow the label to be presented to a third party, with the sensitive information not being made available to the third party.
16. The method of any of claims 1 to 11, further comprising the step of:
obliterating the sensitive information on each spoiled item, such as to allow the item to be presented to a third party, with the sensitive information not being made available to the third party.
17. The method of claim 16 when appendant upon claim 10, wherein the obliterating step comprises the step of:
over-printing the sensitive information, such as to render the sensitive information unreadable.
18. The method of claim 16 when appendant upon claim 10, wherein the obliterating step comprises the step of:
applying a panel over the sensitive information, such as to render the sensitive information unreadable.
19. The method of claim 16, wherein the obliterating step comprises the step of:
cutting out a section of each spoiled item including the sensitive information, such that the item includes no sensitive information.

AMENDED SHEET

08-01-2005

EP0310731

44

20. The method of any of claims 1 to 11, further comprising the step of:
packaging each spoiled item, such as to conceal the sensitive information and allow the item to be presented to a third party, with the sensitive information not being made available to the third party.
21. The method of any of claims 1 to 11, wherein each item includes a cover sheet which includes no sensitive information and on which the element is provided, and further comprising the step of:
separating the cover sheet including the element from the item, such as to allow the cover sheet to be presented to a third party, with the sensitive information not being made available to the third party.
22. The method of any of claims 1 to 21, further comprising the step of:
generating a spoiled item notification in respect of each spoiled item for communication to a remote center.
23. The method of claim 22, further comprising the step of:
electronically transmitting the spoiled item notifications to the remote center, and preferably each spoiled item notification is transmitted separately or spoiled item notifications are transmitted in batches at predeterminable intervals.
24. The method of claim 22 or 23, wherein an image of each spoiled element is acquired in the validation step, and each spoiled item notification includes an image of the respective spoiled element which excludes the sensitive information, such as to allow the image of the element to be presented to a third party, with the sensitive information not being made available to the third party.
25. The method of any of claims 1 to 24, further comprising the step of:
crediting a refund credit register in respect of the value as applied to each spoiled item.

AMENDED SHEET

08-01-2005

EP0310731

45

26. The method of any of claims 1 to 24, further comprising the step of:
reusing the authentication code contained in the element of each
spoiled item.
27. The method of claim 26, further comprising the step of:
writing an element on each item, wherein, where the element of a
previous item is assigned as being spoiled, the written element
contains the authentication code contained in the element of the
previous item assigned as being spoiled.
28. The method of claim 27 when appendant upon claim 8, wherein the
writing step comprises the step of:
printing an imprint as an element on each item.
29. The method of claim 27 when appendant upon claim 9, wherein the
writing step comprises the step of:
electronically writing to an electronic label as an element on each
item.
30. The method of any of claims 1 to 29, wherein the items comprise
documents, preferably comprising one or more sheets.
31. The method of claim 30, wherein the documents comprise mail
documents.
32. The method of any of claims 1 to 29, wherein the items comprise
document carriers, preferably envelopes or mail carriers.
33. The method of any of claims 1 to 32, wherein the sensitive
information is encoded.
34. An item handling system for refunding or reusing value as applied to
items, including an element containing an authentication code and

AMENDED SHEET

26-01-2005

26/01 '05 11:15 FAX 01293 776837

FRY HEATH & SPENCE

EP0310731

002

46

bearing sensitive information, in an item stream, the system comprising:

a validation unit for validating the element on each item in an item stream, wherein an item is assigned as being spoiled where the element does not satisfy at least one validation criterion;

a sorting unit for separating spoiled items from the item stream, with the element of each spoiled item being presented to a third party, such that the sensitive information is not made available to the third party; and

a control unit for controlling operation of the system, wherein the control unit includes a refund credit register and is operative to credit the refund credit register in respect of the value as applied to each spoiled item, or is operative to provide for reuse of the authentication code contained in the element of each spoiled item.

35. The system of claim 34, wherein the validation unit is operative to scan each item for an element.
36. The system of claim 35, wherein the at least one validation criterion requires the element to have at least one physical characteristic, preferably comprising at least one of a position, size and color of the element.
37. The system of any of claims 34 to 36, wherein the validation unit is operative to read data from the element.
38. The system of claim 37, wherein the at least one validation criterion requires authentication of at least part of the read data.
39. The system of claim 38, wherein the authentication of at least part of the read data requires the at least part of the read data to have a predeterminable format.
40. The system of claim 38, wherein the authentication of at least part of the read data requires the at least part of the read data to match check data.

08-01-2005

EP0310731

47

41. The system of any of claims 34 to 40, wherein the element is a printed imprint, preferably a two-dimensional barcode.
42. The system of any of claims 34 to 40, wherein the element is an electronic label, preferably a radio frequency tag.
43. The system of any of claims 34 to 42, wherein the sensitive information is printed on the items.
44. The system of any of claims 34 to 42, wherein the items include an electronic label containing the sensitive information, preferably a radio frequency tag.
45. The system of any of claims 34 to 44, further comprising:
a perforating unit for perforating each spoiled item about the element, such as to allow a section of the item including the element and excluding the sensitive information to be separated, and thereby allow the section to be presented to a third party, with the sensitive information not being made available to the third party.
46. The system of any of claims 34 to 44, wherein each item is perforated about a section including the element, such as to allow the section of the item including the element and excluding the sensitive information to be separated, and thereby allow the section to be presented to a third party, with the sensitive information not being made available to the third party.
47. The system of any of claims 34 to 44, wherein the element is removable from the item, such as to allow the element to be separated, and thereby allow the element to be presented to a third party, with the sensitive information not being made available to the third party.

08-01-2005

EP0310731

48

48. The system of any of claims 34 to 44, wherein each item includes a label on which the element is provided, such as to allow the element to be separated by removal of the label, and thereby allow the label to be presented to a third party, with the sensitive information not being made available to the third party.
49. The system of any of claims 34 to 44, further comprising:
an obliteration unit for obliterating the sensitive information on each spoiled item, such as to allow the item to be presented to a third party, with the sensitive information not being made available to the third party.
50. The system of claim 49 when appendant upon claim 43, wherein the obliteration unit comprises a printer for over-printing the sensitive information, such as to render the sensitive information unreadable.
51. The system of claim 49 when appendant upon claim 43, wherein the obliteration unit comprises an applicator for applying a panel over the sensitive information, such as to render the sensitive information unreadable.
52. The system of claim 49, wherein the obliteration unit comprises a cutter for cutting out a section of each spoiled item including the sensitive information, such that the item includes no sensitive information.
53. The system of any of claims 34 to 44, further comprising:
a packaging unit for packaging each spoiled item, such as to conceal the sensitive information, and thereby allow the item to be presented to a third party, with the sensitive information not being made available to the third party.

54. The system of any of claims 34 to 44, wherein each item includes a cover sheet which includes no sensitive information and on which the element is provided, such as to allow the cover sheet including the element to be separated from the item, and thereby allow the cover sheet to be presented to a third party, with the sensitive information not being made available to the third party.
55. The system of any of claims 34 to 54, wherein the control unit is operative to generate a spoiled item notification in respect of each spoiled item for communication to a remote center.
56. The system of claim 55, wherein the control unit includes a communications module for electronically communicating with the remote center, whereby the spoiled item notifications are transmitted electronically to the remote center, and preferably each spoiled item notification is transmitted separately or spoiled item notifications are transmitted in batches at predeterminable intervals.
57. The system of claim 55 or 56, wherein the validation unit is operative to acquire an image of each spoiled element, and each spoiled item notification includes an image of the respective spoiled element which excludes the sensitive information, such as to allow the image of the element to be presented to a third party, with the sensitive information not being made available to the third party.
58. The system of any of claims 34 to 57, further comprising:
a writing unit for writing an element on each item; and
wherein the control unit is operative to control the writing unit to write an element containing the authentication code contained in the element of a previous item assigned as being spoiled.

59. The system of claim 58 when appendant upon claim 41, wherein the writing unit comprises a printing unit for printing an imprint as an element on each item.
60. The system of claim 58 when appendant upon claim 42, wherein the writing unit comprises an electronic label writer for writing to an electronic label as an element on each item.
61. The system of any of claims 34 to 60, wherein the items comprise documents, preferably one or more sheets.
62. The system of claim 61, wherein the documents comprise mail documents.
63. The system of any of claims 34 to 60, wherein the items comprise document carriers, preferably envelopes or mail carriers.
64. The system of any of claims 34 to 63, wherein the sensitive information is encoded.